

FOUR NEW SPHINGIDAE DISCOVERED BY T. R. BELL IN NORTH KANARA.

BY DR. KARL JORDAN.

(With 10 text-figures.)

1. *Oxyambulyx belli* spec. nov.

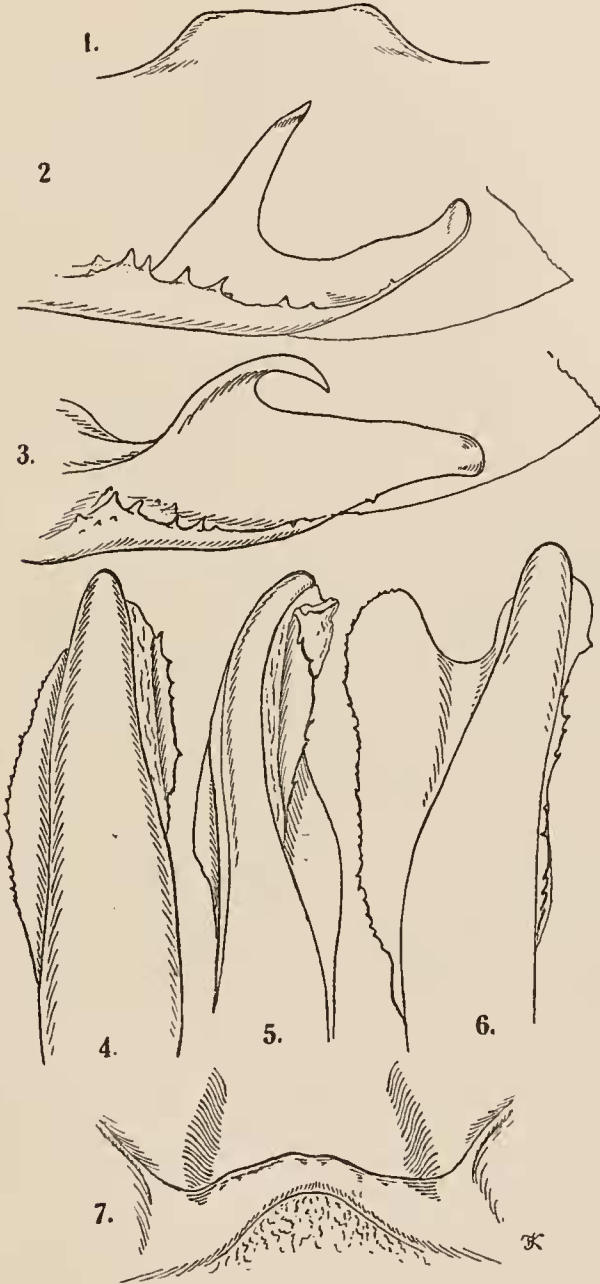
♂♀. A rather small species. General colour deeper ochraceous tawny than in the other Indian species of *Oxyambulyx*, with the exception of *O. subocellata*. In markings somewhat resembling *O. maculifera*. Abdomen with an indistinct dorsal line, which is not widened into a patch on tergite VIII of the ♂, the line sometimes scarcely traceable. Forewing flushed with purple, especially in the ♀, which is darker tawny than the ♂; two dark olive subbasal spots, the costal one the smaller of the two in the ♂, the larger in the ♀, in two ♂♂ the costal spot vestigial, in one ♀ both spots; the costal bar of the outer antemedian line reaches hindmargin of cell at some distance from lower cell-angle, being less oblique than in *O. maculifera* and more oblique than in *O. ochracea*; discocellular dot inconspicuous; in ♂ the veins in outer two-fifths of wing slightly darker than the ground, especially R¹ and R², this outer area from R¹ backwards a deeper colour than the rest of the wing; olive black submarginal line posteriorly close to termen, accompanied by a pale line as in other species, but this pale line bounded on the proximal side by more or less distinct traces of a dark line. Hindwing with the usual markings, its ground colour paler than on forewing, the abdominal area slightly shaded with pinkish grey, base not darkened; fringe white in the last two marginal recesses (the long scales only), dentition stronger than in *O. substrigilis*.

Underside tawny, slightly paler proximally, feebly irrorated with small darker speckles, no blotches; forewing with a grey terminal band, which is very narrow posteriorly and does not reach tornus; the blackish line bounding this band diffuse, feebly marked, often vestigial. On underside of hindwing the bands of upperside present, or at least the median band indicated, shadowy.

Body similar to the wings; palpus and breast tawny, sides of breast with a vinous red tint.

♂. Eighth sternite with a distinct median lobe (text-fig. 1), which is truncate, with the angles more or less rounded and sometimes turned inward (= upward). Tenth sternite, broad with a very small rounded median sinus. Armature of clasper recalling *O. substrigilis* and *O. placida*, with two processes (text-figs. 2, 3), the upper process pointed and somewhat curved mesad (i.e. away from the inner surface of the clasper), the apical process much broader, a little longer, gradually narrowed but remaining obtuse, with the apex also curved mesad; both processes slightly variable in length and width; above the ventral margin of this harpe a row of teeth variable in number. Penis-sheath (text-figs. 4-6) of the same type as in *O. substrigilis*, ending with a rod-like process, which is

much broader and shorter than in that species ; at each side of this dorsal rod, which is slightly curved ventrad apically, there is a longitudinal dentate ridge



connected with the sheath by a membrane and capable of being moved a short distance away from the sheath, as represented in text-fig. 6.

♀. Postvaginal sclerite smooth, transversely concave nearly in centre ; in front of the orifice a definite ridge of chitin, sharp, slightly uneven, highest in middle (text-fig. 7).

Length of forewing ♂, 39–42 mm. ; ♀, 43–50 mm.

Breadth „ „ 16–17 mm. ; „ 17–19 mm.

Hab. North Kanara (T. R. Bell), a series. Larva on *Xylia xylocarpa*.

2. *Oxyambulyx substrigilis aglaia* subsp. nov.

♂. Similar to *O. s. substrigilis* from North India, the underside of the body, palpi and wings, and the upperside of the hindwing much deeper orange fulvous. The costal subbasal spot on the forewing above usually absent, but sometimes nearly as large as the one placed below the cell.

♀. On forewing, above, the antemedian pair of lines less distinct than in North Indian specimens, sometimes absent, closer together before hindmargin and here more oblique. On underside the wings more sparsely irrorated with brown. In two colour forms : a pale form nearly as bright tawny ochraceous as *O. belli*, beneath brighter orange than North Indian ♀♀ ; and a dark drab specimen darker than any of our North Indian *substrigilis* ♀♀, with the markings of hindwing above smaller.

Ventral process of harpe shorter than in *O. s. substrigilis* ; penis-sheath slender, with the right side ridge shorter.

Hab. North Kanara (T. R. Bell), several specimens of both sexes.

Bright tawny specimens, especially ♀♀, might easily be mistaken for *O. belli*. In *aglaia*, however, the dorsal line of the abdomen is more prominent, the underside of the wings is more yellowish orange, the tornus of the forewing is almost rectangular, less obtuse than in *O. belli*, the hindwing broader, with the apex more rounded, the base deeper in colour, and the discal band posteriorly more deeply incurved. On underside the brown submarginal line of forewing complete.

3. *Oxyambulyx matti* spec. nov.

♂. Intermediate between *O. belli* and *O. substrigilis aglaia*. Upperside of body and of forewing with a pink tint, less cold grey than in *O. substrig. aglaia* ♂ and much less warm tawny than in *O. belli*. Abdomen with a very faint median line. Forewing with two blackish olive subbasal spots, the posterior one larger than the costal spot, its diameter rather longer than the distance of the spot from the fringe of the hindmargin ; costal portion of outer antemedian line as oblique as in *O. substrig. aglaia*, running to lower cell-angle and appearing as a continuation of the dark vein R¹ ; proximal discal line just outside upper cell-angle, the second discal line (which is very faint) crossing the stalk of the subcostal fork about 1 mm. from SC⁵, both these lines being more proximal than in *O. substrig. aglaia*, the two outer bars before hindmargin near tornus distant from each other, slightly curved, not forming a horse-shoe mark as in *O. substrig. aglaia* ; before this group of bars no rounded spot, as is usually the case in the ♂♂ of *O. substrigilis* from India.—Hindwing narrower than in *O. substrigilis* ; ground paler yellow, the dark brown basal patch smaller ; abdominal area less shaded with grey ; dark brown median band very distinct, touching lower cell-angle, second band less distinct than in *O. substrig. aglaia*, less crenulated, extending forward to R¹ ; submarginal band vestigial inclusive of its anterior portion, which is present in *O. substrig. aglaia* as a subapical spot or short band ; long scales of

fringe more or less extended white or whitish between the veins as in *O. substrig. aglaia*.

Underside of body and wings slightly paler yellow than in South Indian *O. substrigilis*. On forewing a pinkish brown subcostal spot close to upper cell-angle between SC⁴, ⁵ and R¹, only a minute yellow dot separating it from that angle; outer fourth of forewing rather densely and coarsely irrorated; grey terminal band continued to tornus as a thin line. Median band of hindwing touching lower cell-angle.

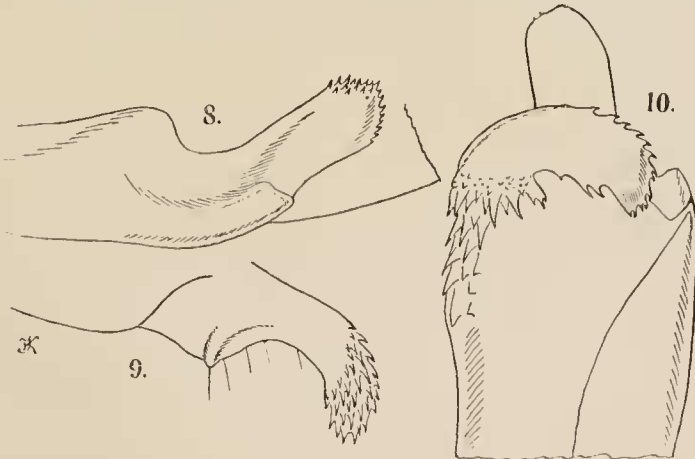
Genitalia: Eighth sternite as in *O. substrigilis* without distinct median lobe. Ninth tergite somewhat broader in dorsal aspect, its frontal margin less deeply sinuate. Compressed apical portion of tenth tergite slightly wider in a lateral view and its tip without the right and left ridge present in South Indian *O. substrigilis*. Tenth sternite intermediate in shape between these sclerites of *O. substrigilis* and *O. belli*, the lobes being broader than in the former species and narrower than in the latter. Clasper and its armature as in *O. belli*, but with fewer and smaller subventral teeth. Penis-sheath similar to that of *O. substrig. substrigilis*, i.e. slightly stouter than in South Indian *O. substrigilis aglaia*, and the right side dentate ridge longer (= left side in a dorsal view with the tip of the sheath directed upwards).

Hab. North Kanara (T. R. Bell), one ♂. Larva on *Terminalia tomentosa*.

The occurrence of these three closely allied *Oxyambulyx* in North Kanara is a surprising fact. We are most grateful to Mr. Bell for having submitted these interesting species to us for study and for having so generously presented the specimens to this Museum. Mr. Bell has bred the species, and we are looking forward to his account of their life-history.

4. *Macroglossum vicinum* spec. nov.

♂♀. In size, colour, and markings similar to *M. insipida insipida*. Palpus less grey, being rather strongly shaded with walnut-brown. Grey margin of



mesothoracic tegula less contrasting. Forewing, above, as in *M. i. insipida*, the markings the same, but softer, the wing appearing less variegated. Hindwing: median band slightly deeper yellow, the black marginal band less angulate below centre than is usually the case in *M. i. insipida*.

